Electronic Prognostic Workshop II
23 – 24 January 2006
Miami, FL

Integrated Diagnostics Committee

Co-Chairs

Howard Savage

Dennis Hecht

Administrative Issues

- On-site NDIA Representative
  - Emily Brown
  - Telephone: (703) 247-9476
  - Email: ebrown@ndia.org
- Messages
- Restrooms
  - Right out of this room
  - Left down the hall-way

Integrated Diagnostic Committee

- One Definition of Integrated Diagnostics
  - Integrated Diagnostics is part of the total Systems Engineering or reengineering process in which diagnostic functions are partitioned to components, both on and off the product, to optimize its economic and functional performance throughout the entire product life cycle. This is accomplished by ensuring effective communication of information relevant to the test and diagnostic process to those diagnostic functions and components for which it is required. (source: OS AIDD Concept Study)

- A PRIMARY OBJECTIVE of this committee is to determine how to reduce total cost of ownership of weapon systems.

Integrated Diagnostics

Past Year's Activities

- Actions From TMDE (Army) – Pat Stevens
  - Diagnostic Requirements
    - White Paper Issued
  - Infra-Structure Requirements to facilitate Maintenance Data Management
  - Further Define Maturation Process
    - Maintenance Data Capture and usage

- Work with the System Engineering Division to "Fix BIT"
  - Lou Kratz's statement at the System Engineering Conference

Integrated Diagnostic Committee
2005

ID Committee will –

1) Electronics Prognostics Technology Task Group

2) Act as a Liaison between NDIA associates (DoD and Industry)
And
Sandia – Center of Excellence for Prognostics and Health Management (Department of Energy)

3) Initiate System Engineering thrust for Diagnostics (Diagnostics, Health Management, and Prognostics As a System)

Electronic Prognostic Task Group

Prognostic Workshop II

- Your Hosts
  - Jim Dill
  - Paul Howard

- The workshop will catalog and characterize the electronic prognostic needs of Fixed Wing Aircraft platforms, Ground Vehicle platforms, Rotary Wing Aircraft platforms, and Ship platforms with a goal to document:
  - What are the Electronic Prognostic Needs
  - What are the current R&D Electronic Prognostic activities
  - Where are the Electronic Prognostic Gaps

Introductions

- Name
- Diagnostics / Prognostics Experience
- Expectations of Prognostics Workshop

Electronic Prognostic Workshop
15 – 16 June 2004
Denver, CO

Assigned Task

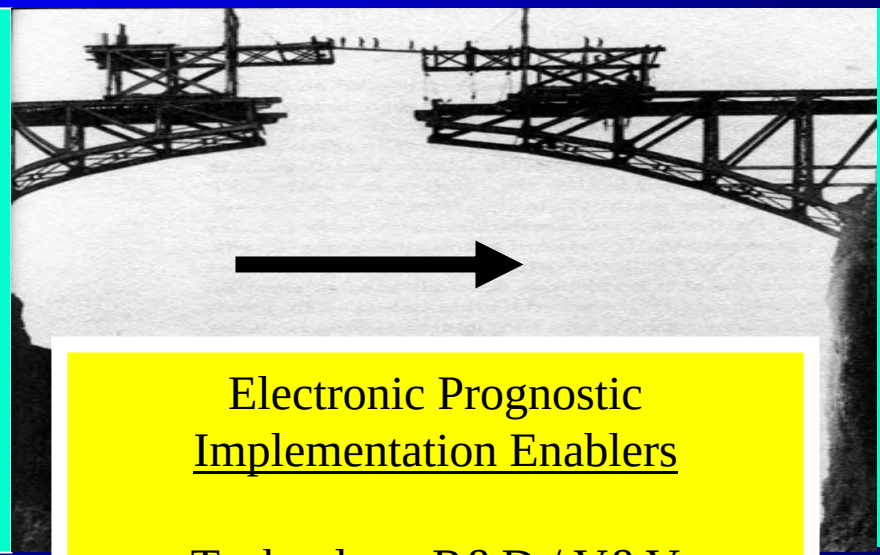
"Identify the types of diagnostic data that should be collected for use in providing an electronic systems prognostic capability"

Requested by:
John Kelly
USNCIV NAVAIR 2133

Prognostics Task Group

Reply to NAVAIR Data Type Tasking

- **Fault Data**
- **Context Data**
- **Historical Data,**
- **Repair Data,**
- **Parametric Data,**
- **Manufacturing Data**



Electronic Prognostic Implementation Enablers

Technology R&D / V&V
Sensors
Algorithms
Models
Integrated Diagnostics

Fielded

Electronic

Prognostic

Capability

Some are Known

Some are Unknown